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# NEW SUBSPECIES OF BIRDS FROM LUZON, PHILIPPINES

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During the course of my studies on Philippine birds, initiated in 1956 following an expedition to central Luzon, taxonomic revisions of several species have been undertaken, some of which have already been published. In the present paper, five additional subspecies from Luzon are described. Of these, two represent forms from Luzon as a whole, as distinct from those of other islands, while three reflect geographic variation within Luzon itself. The latter may be added to Gilliard's list (1950:473) of bird species geographically variable on Luzon, which I have already amended to some extent (Parkes, 1958:2).

# Gallicolumba luzonica griseolateralis, subsp. nov.

Type: Adult \( \text{(Y.P.M. No. 48108)} \) collected at Mt. Sicapo-o, Ilocos Norte Province, Luzon, Philippines, April 18, 1959, by D. S. Rabor (original no. 18557).

Diagnosis: Similar to G. l. luzonica (Scopoli) of central and southern Luzon (type locality, vicinity of Manila), but crown darker gray, less clearly defined from back of head;

grays of wings somewhat darker; flanks and under tail coverts of females darker, the rufous much mixed with gray, and lower breast and abdomen purer white, less "stained" in appearance.

Range: Northern Luzon; I know of no specimens presently extant from areas where intergradation with *luzonica* might take place.

Remarks: Sexual dimorphism in the Bleeding-heart Pigeon does not appear to have been described in the standard ornithological literature, and has been barely mentioned by aviculturalists. Delacour (1959:63) states that the female is "a little smaller and duller, with a thinner bill and a smaller head. Her underparts show more buff." There are actually several color differences between the sexes. Females have the edges of the flight feathers of the wing more strongly rufescent and are more heavily washed with rufous or pinkish-buff on the flanks and under tail coverts. There is a marked tendency for the iridescent color of the back to invade the area of the bend of the wing, which is clear gray in males. Males have, on the average, a somewhat larger red breast-spot, posterior to which is, in most individuals, a strong pinkish wash. In females of luzonica this wash is pinkish-buff mixed with gray, giving the underparts a stained appearance; this effect is less well marked in ariseolateralis, as mentioned above in the diagnosis of that race.

Delacour and Mayr (1946:95-96) treated all of the Philippine representatives of Gallicolumba as subspecies of G. luzonica. Later, however, Delacour (1959:63-64) recognized at least two species (total number not clear from his discussion). Peters (1937:133-134) admitted five species. Certainly the level of differentiation represented by luzonica and griscoluteralis, or by criniger, leytensis and basilanica, more closely corresponds to the usual Philippine (and continental) subspecies than does that represented by luzonica versus criniger. As is true of so many insular representative forms, the Bleeding-heart Pigeons have attained several stages of differentiation. To call all of these forms subspecies of luzonica is to use our admittedly imperfect trinomial system to mask certain obvious interrelationships. Within such a system it is impos-

sible to avoid compromise. In this case the most useful solution seems to be the treatment of these pigeons as a single superspecies, divided into several species corresponding to what are usually specific levels of differentiation in appearance among continental forms. Some of these, in turn, exhibit geographical variation at the subspecific level.

Genuinely wild Bleeding-heart Pigeons from Luzon, with accurate locality data, are far outnumbered in museum collections by aviary specimens. All of the latter that I have seen have been referable to the southern race, so that it appears reasonably certain that the original material of *luzonica*, even if obtained in a Manila market, came from this population. A total of five northern and nine southern Luzon specimens with accurate data formed the basis for these notes.

#### Copsychus saularis heterogynus, subsp. nov.

Type: "&" [= adult \( \) ] (Carnegie Mus, No. 139025), collected at Pangil, Laguna Province, Luzon, Philippines, in November, 1958, by N. A. Icarangal.

Diagnosis: Females differ from those of *C. s. mindanensis* (type locality, Mindanao) in being more heavily washed with buff on the posterior underparts, and in having this area, especially the flanks and under tail coverts, finely but distinctly barred with white. Males are not separable from *mindanensis*.

RANGE: Island of Luzon. No specimens from Polillo, Catanduanes or Marinduque were examined; these islands tend to be inhabited by Luzon subspecies of polytypic Philippine species.

REMARK: De Schauensee and du Pont (1959:3) have mentioned the fact that Dyals from the Sulus have somewhat larger bills than those from the remainder of the Philippines. Actually the Sulu birds represent the extreme of a slight cline in bill size; although many specimens from both ends of the Philippine archipelago can be matched with one another, the individuals with longest and heaviest bills are mostly from more southern islands (Negros, Mindanao, Basilan, Sulus).

Of C. s. heterogynus, 14 males and 14 females from Luzon were examined, and of C. s. mindancusis, the following: Sibuyan,

1 &, 1 \, \text{ Mindoro, 1 &, 2 \, \text{: Samar, 1 &, 1 \, \text{: Cebu, 1 & (juv., identified by probability); Negros, 4 &, 4 \, \text{: Mindanao, 4 &, 4 \, \text{: Basilan, 7 &, 1 \, \text{: Sulu archipelago, 4 &, 1 \, \text{.}}.

### Dicaeum aeruginosum striatissimum, subsp. nov.

Type: adult & (Carnegie Mus. No. 95037), collected at Solsona, Ilocos Norte Province, Luzon, Philippines, December 8, 1923, by R. C. McGregor *et al.* 

Diagnosis: Differs from *D. a. aernginosum* (type locality, Cebu) in being more heavily streaked below, with streaks extending farther back along flanks and on abdomen; dorsum sootier, with less contrasting greenish wash on upper tail coverts and edges of remiges and rectrices; white spot on inner web of outer rectrix larger but less sharply defined. Differs even more from *D. a. affine* of Palawan, which is markedly greenish above and sparsely streaked below.

Range: Specimens examined from islands of Luzon and Sibuyan.

Remarks: I follow Salomonsen (1960a:5-6) in considering *D. aeruginosum* to be specifically separable from *D. agile*, with which it has been associated by recent authors. Salomonsen believed that "*D. a. aeruginosum* shows no geographical variation within its range," but had examined only Luzon and Mindoro specimens.

There is a cline in the Philippines from north to south in decrease of ventral streaking and increase of greenish on back and wings. Thus, although Luzon birds as a group are sufficiently distinct from those of the more southern islands to be worthy of nomenclatorial recognition, the characters of striatissimum are best developed in northern Luzon; the type selected is therefore a northern bird. In some species (cf. Dicrurus) the Mindoro population is most closely related to that of Palawan, lying to the southwest. In Dicacum acruginosum, on the other hand, Mindoro lies on the main north-south cline, and Mindoro birds are almost exactly intermediate between striatissimum and acruginosum. They are nearest the former in back color and nearest the latter in amount of

ventral streaking (6 specimens examined). Of striatissimum, 16 Luzon specimens and 1 Sibuyan specimen have been examined. Of acruginosum, 6 Cebu and 4 Negros specimens were seen. The one known specimen from Mindanao (Salomonsen, op. cit.:15-16) probably belongs here. Of affine, 4 Palawan specimens were examined.

### Dicaeum hypoleucum lagunae, subsp. nov.

Type: adult ? (Carnegie Mus. No. 139066), collected at Pangil, Laguna Province, Luzon, Philippines, in November, 1958, by N. A. Icarangal.

Diagnosis: Similar to *D. h. obscurum* from northern Luzon, but underparts heavily washed with olivaceous green, brightest and yellowest on mid-abdomen, rather than almost neutral gray with relatively little greenish wash. Quite different from the southern races pontifex, mindanense and hypoleneum, which are progressively more bicolored, culminating in the sharply black-and-white *D. h. hypoleneum*, the only race with pronounced sexual dimorphism. In lagunae, as in obscurum, the sexes are alike in color.

Range: Presently known only from Laguna Province, southcentral Luzon, Philippines.

Remarks: Several birds of the foothills and highlands appear to have an interrupted range in Luzon, with distinctive northern and southern subspecies (cf. Ptilinopus merrilli, Culicica pa helianthea). This hiatus may be an artifact based on insufficient collecting, as there are still large areas of Luzon, especially in the eastern Sierra Madre, which are all but unknown ornithologically. In any case, Dicaeum hypoleucum is here shown to be still another species known from areas in northern and in southern Luzon, with a subspecies in either area. I have examined 28 specimens from various northern Luzon localities, in the collections of the American Museum of Natural History and the Yale University Peabody Museum. Of lagunae I have seen only the type, in Carnegie Museum, and three specimens in the American Museum (one each from Mt. Makiling, Los Baños, and "Southern Luzon").

Salomonsen (1960b:3), when reviewing this species, stated that he had seen specimens of obscurum from Mountain Province only, although he supposedly had available the material belonging to the American Museum of Natural History.

## Dicaeum pygmaeum salomonseni, subsp. nov.

Type: adult & (Y.P.M. No. 48608), collected at 1600' on Mt. Sicapo-o (Mt. Simminublan), Ilocos Norte Province, Luzon, Philippines, April 4, 1959, by D. S. Rabor and R. B. Genzales (original no. 21123).

Diagnosis: Similar to D. p. pygmaenm of central Luzon south to the Surigao Strait (type locality, "Luzon," here restricted to the vicinity of Manila), but males with dorsum blacker, less green, contrasting more with rump; flanks grayer, less green; sides of head duller gray, less sharply defined from the white of the throat. In both pygmaenm and salomouseni the breast color is highly variable, but in the latter race the orange is less often than in pygmaenm concentrated into a suggestion of a definite breast spot. Females of salomouseni are duller, grayer, less green above than those of pygmaeum, with the yellow-green area of the rump duller and less extensive; underparts with less buffy wash; flanks grayer, less green.

Range: Northern Luzon, known from Mountain and Ilocos Norte provinces.

Remarks: Negros males are slightly paler on the sides of head than males from southern Luzon, but are not subspecifically separable from D. p. pygmacum. It is of interest to note that Salomonsen (1960b:15-16) found that specimens from the Babuyan Islands north of Luzon differed from "typical pygmacum" in certain characters, some of which ("deeper orange vinaceus [sic] tinge on the under parts, slightly darker olive flanks, and the dark longitudinal patch on the center of the lower breast and abdomen more well marked and distinct") represent trends opposite to the differences observed between the south Luzon pygmacum and the north Luzon salomonseni.

Of. D. p. salomonseni, 6 specimens from Mountain Province,

16 from Ilocos Norte Province, and 1 from "North Luzon" were examined. Of *D. p. pygmaeum*, the following Luzon specimens were examined: Manila, 1; Bataan Prov., 5; Rizal Prov., 5; Laguna Prov., 3; "Luzon," 1. Also Marinduque, 1; Siquijor, 1; Mindoro, 5; Bohol, 2; Negros, 20.

This new flowerpecker is named for the emment Danish ornithologist Dr. Finn Salomonsen, an authority both on Philippine birds and on the family Dicaeidae.

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Specimens for comparison were borrowed through the courtesy of the authorities of the American Museum of Natural History, Yale University Peabody Museum of Natural History, Chicago Natural History Museum, and United States National Museum. Specimens were also examined in situ at the first two museums named, and at the California Academy of Sciences and the Museum of Vertebrate Zoology, University of California. Study of Philippine specimens at the last two named institutions took place during visits primarily concerned with an unrelated project supported by a grant from the National Science Foundation.

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